

SUBSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 06816/005002	SERIAL NO. 08/478,801 PTO
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		ATTACH Toffs		APPLICANT SURAMPUDI et al.	09/88/222 U.S. 881222
(37 CFR 1.98(b))				FILING DATE June 7, 1995	09/88/222 U.S. 881222
				6/13/01	09/88/222 U.S. 881222
				GROUP/795 Unassigned	09/88/222 U.S. 881222
				11040	06/13/01

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER		ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
OK	AA	3013908	12/1961	Luck et al.				
OK	AB	3113049	01/1961	Worsham				
OK	AC	3368922	02/1968	Salyer				
OK	AD	4262063	04/1981	Kudo et al.	429	41		
OK	AE	4390603	06/1983	Kawana et al.	429	30		
OK	AF	4407905	10/1983	Takeuchi et al.	429	42		
OK	AG	4420544	12/1983	Lawson et al.	429	42 X		
OK	AH	4478917	10/1984	Fujita et al.	429	33		
OK	AI	4537840	08/1985	Tsukui et al.	429	33		
OK	AJ	4562123	12/1985	Shimizu et al.	429	27		
OK	AK	4612261	09/1986	Tsukui et al.	429	13		
OK	AL	4629664	12/1986	Tsukui et al.	429	23		
OK	AH	4828941	05/1989	Sterzel	429	33		
OK	AN	4876115	10/1989	Raistrick	427	165		
OK	AO	5186877	02/1993	Watanabe	429	42 X		
OK	AP	5330860	07/1994	Grot et al.	429	33		

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

OK	AQ	"Studies of the Electro-oxidation of Methanol and Formaldehyde at Carbon-supported Platinum and Platinum Alloy Electrodes" The Electrochemical Society, Inc., R. Knieler, G. Stolp, G.S. Prakashand and G. Olah, October 11 - 16, 1992
OK	AR	"Fuel Cell Update" Popular Science, P.J. Skerrett, June 1993
OK	AS	"Applications of the Gas Diffusion Electrode to a Backward Feed and Exhaust (BFE) Type Methanol Anode" Masahiro Watanabe, Makoto Uchida and Satoshi Motoo, J. Electroanal. Chem., 199 (1986) 311-322 (Motoo Uchida)
OK	AT	"The Use of Thin Films of Sulphonated Fluoro-Polymers for Improvements in the Activity and Durability of Pt Electrocatalysts for Methanol Electrooxidation" Masahiro Watanabe, Takeshi Takahashi and Hideaki Kita J. Electroanal. Chem., 284 (1990) 511-515 (Takeshi Takahashi)

EXAMINER

DATE CONSIDERED

5/7/03

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449
(MODIFIED)DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
06816/005002SERIAL NO.
084478, 801
1981222INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.98(b))

APPLICANT:
Surampudi, et al.FILING DATE
06/07/97GROUP
UNKNOWN
1745J1040 U.S. TO
19881222 01/13
6/01

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER					ISSUE DATE	PATENTEE		CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
SK	AA	3	1	4	3	4	4	0	08/04/64	H. HUNGER ET AL.	08/04/60

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
SK	AL	59-209277	04/04/85	Japan			X	
SK	AM	60-165062	01/07/86	Japan			X	
SK	AN	63-076264	08/22/88	Japan			X	
SK	AO	02-148657	08/24/90	Japan			X	

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

SK	AQ	Narayanan et al. "Implications of Fuel Crossover in Direct Methanol Fuel Cells", Extended Abstracts Fall Meeting October 10-15, vol. 93/2, pps 126/127, New Orleans 1993.
SK	AR	Kosek et al. "A Direct Methanol Oxidation Fuel Cell", Proceeding of the 28th Intersociety Energy Conversion Engineering Conference, vol. 1, pps 1.1209 - 1.1214, Atlanta 1993.
SK	AS	Hamnet et al. "Electrocatalysis and the Direct Methanol Fuel Cell", Chemistry and Industry, Chemistry and Industry Review, No. 13, pps 480-483, 7/6/92.
SK	AT	Swawodzinski et al. "Methanol Cross-Over in DMFC's: Development of Strategies for Minimization", Extended Abstracts Spring Meeting 1994 St. Louis, MO, vol. 94/2, pg. 960, 1992

EXAMINER

DATE CONSIDERED

5/7/03

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SUBSTITUTE FORM PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 06816/005002	SERIAL NO. 08778-801 6/13/01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT: Surampudi et al.		
(37 CFR 1.98(b))		FILING DATE June 7, 1995	6/13/01	GROUP 1745

11040 U.S. PTO
1109/881222
06/13/01

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3 1 4 3 4 4 0	08/04/64	Hunger et al.			
OK	AB	3 0 1 3 0 9 8	12/12/61	Hunger et al.			
OK	AC	4 4 9 3 8 7 8	01/15/85	Horiba et al.			
OK	AD	5 5 9 9 6 3 8	02/04/97	Surampudi et al.	429	33	
	AE						

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AF	JP 59209277	11/27/84	Japan				
	AG	JP 60165062	08/28/85	Japan				
	AH	JP 63078264	04/06/88	Japan				
	AI	JP 02148657	06/07/90	Japan				
OK	AJ	JP 06188008	07/08/94	Japan				
OK	AK	EP 0241432	10/14/87	Europe				
OK	AL	DE 4243600	07/01/93	Germany				
OK	AM	JP 6251779	09/09/94	Japan				
OK	AN	JP 54076443	06/09/79	Japan				
OK	AO	FR 1436154	07/01/66	France				

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

OK	AP	Narayanan et al., Implications of fuel crossover in direct methanol fuel cells, 10/93, Extended Abstracts Fall Meeting, vol. 93/2, pg.126/127
OK	AQ	Kosek et al., A direct methanol oxidation fuel cell, 08/93, Proceedings of the 28th Intersociety Energy Conversion Engineering Conference, vol.1
OK	AR	Hamnett et al., Electrocatalysis and the direct methanol fuel cell, 07/92, Chemistry and Industry Chemistry and Industry Review, no. 13, pg. 480-483
OK	AS	Narayanan et al., Studies on the electro-oxidation of methanol and formaldehyde at carbon-supported platinum and platinum alloy electrodes, 1992, Extended Abstracts Fall Meeting, vol. 92, no.2, pg. 78-79 (OK)
OK	AT	Zawodzinski et al., Methanol cross-over in DMFC'S: Development of strategies for minimization, 10/92, Extended Abstracts Spring Meeting, vol. 94/2, pg.960
OK	AU	Poltarzewski et al., Nafion distribution in gas diffusion electrodes for solid-polymer-electrolyte-fuel-cell applications, 03/92, Journal of the Electrochemical Society, vol.139, no.9, pg.761-765
OK	AV	Surampudi et al., Advances in direct oxidation methanol fuel cells, 01/94, Journal of Power Sources, vol.47, no.3, pg.377-385

8/17/01

SK	AX	Watanabe, Improvement of performance and durability of anode for direct methanol fuel cells, 1992, Proceedings of the Workshop on Direct Methanol-Air Fuel Cells, vol.92-14	(Manu Akiyama)
EXAMINER	<i>SK/KA</i>	DATE CONSIDERED	5/7/03
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Substitute Disclosure Form (PTO-1449)

4 of 5

09/881222